

Appln No. 09/844,898

Amdt date August 3, 2005

Reply to Office action of June 3, 2005

REMARKS/ARGUMENTS

The above identified patent application has been amended and reconsideration is hereby requested. Claims 1-47 are now in the application. Claims 1, 7, 42 and 47 have been amended. No claims have been added or cancelled by this amendment.

The Examiner has rejected Claims 1, 2, 4-8, 10-22, 24-38, 40-41 and 43-47 under 35 U.S.C. §102(e) as allegedly being anticipated by Etzel et al. (U.S. Patent No. 6,577,734 B1), ("Etzel").

Claim 1 has been amended, and now calls for, "a selector for coupling the first memory to the second memory via the digital data input medium, the selector for receiving the digital data and the cryptographic key from the multiplexer, and for providing the cryptographic key to the second memory" (emphasis added). As such, Applicants submit that Claim 1 is not anticipated by Etzel under 35 U.S.C. §102(e).

While the Examiner states on page 9 of the Office Action that, "the selector is the processor 2 in Fig. 5 or the processor 25 in Fig. 1", applicants do not see in Etzel that either the processor 2 in Fig. 5 or the processor 25 in Fig. 1 receive data and keys from a multiplexer. Applicant notes that, Etzel discloses in column 10, lines 1-3 with reference to Fig. 5 that, "Input data handler 6 includes an input register file configured as a FIFO, register, byte counters and a multibit, e.g., 32 bit, multiplexer." (emphasis added). However, Etzel

Appln No. 09/844,898

Amdt date August 3, 2005

Reply to Office action of June 3, 2005

goes on to disclose in column 9, lines 40-50 with reference to the DES processor 7 that,

"It is seen that DES processor 7 has direct access to key cache 8 and uses such access to obtain a key from the cache to encrypt incoming data that is received via input data handler 6. Specifically, responsive to receipt of an instruction from processor 2 to encrypt data using an identified program encryption key, processor 7 accesses cache 8 using such identity (e.g., a memory location address) unloads a copy of the identified program encryption key and encrypts the data as it is received via handler 6 using the selected program encryption key. Processor 7 then outputs the encrypted data via output data handler 12 [sic]" (emphasis added).

While the DES processor 7 receives an instruction from processor 2 to encrypt data using an identified program encryption key, Etzel does not disclose that the processor 2 receives the key itself. Rather, as disclosed above, the key is obtained directly from the cache by the DES processor 7 which also receives incoming data that is received via input data handler 6. After encryption, the encrypted data is output through the output data handler 14 (marked "output data handler 12" in the selection above, which appears to be a typographical error contrasting with the labeled output data handler 14 of Fig. 5).

Therefore, because Etzel does not disclose that either the processor 2 or the processor 25 receives digital data and a cryptographic key from a multiplexer, Applicants submit that Claim 1 is not anticipated by Etzel under 35 U.S.C. §102(e), given its recitation of, "a selector for coupling the first memory to the second memory via the digital data input medium, the selector for receiving the digital data and the cryptographic key from the multiplexer, and for providing the

Appln No. 09/844,898

Amdt date August 3, 2005

Reply to Office action of June 3, 2005

cryptographic key to the second memory". Claims 2-6 are dependent on Claim 1. As such, Claim 2-6 are believed allowable based upon Claim 1 and for the additional limitations contained therein, which together further patentably distinguish Claims 2-6 over the art of record.

Claim 7 has been amended and currently calls for, "transferring the selected encryption key from the first memory to a second memory over a digital data transfer medium that is also used for transferring the digital data to be encrypted, using a multiplexer coupled to the digital data transfer medium to transmit the digital data or the selected encryption key on the digital data transfer medium", as well as, "receiving the selected encryption key from the multiplexer into a selection switch that provides the selected encryption key to the second memory" (emphasis added). As discussed above, Etzel does not disclose either the processor 2 or the processor 25 receiving digital data and a cryptographic key from a multiplexer, or any selection switch receiving a selected encryption key from a multiplexer. Applicants therefore submit that Claim 7 is not anticipated by Etzel under 35 U.S.C. §102(e). Claims 8-11 are dependent on Claim 7. As such, Claim 8-11 are believed allowable based upon Claim 7 and for the additional limitations contained therein, which together further patentably distinguish Claims 8-11 over the art of record.

Claim 12 calls in part for a system having "a first input terminal for receiving the digital data, a second input terminal

Appln No. 09/844,898

Amdt date August 3, 2005

Reply to Office action of June 3, 2005

for receiving a key... wherein the system receives the key from an external key storage medium via the second input terminal during operation of the system." (emphasis added). As such, Applicants submit that Claim 12 is also not anticipated by Etzel under 35 U.S.C. §102(e).

The Examiner states on page 9 of the Office Action that, "Etzel does disclose both terminals. As described above, the processor 25 gets the encode program via path 16, the first input terminal, and gets the encrypting key from its memory, the second terminal." Although the Examiner further states on page 10 of the Office Action that, "Etzel also discloses that the key is from the memory 25, which is external of the encryptor", Claim 12 calls for "the system receiv[ing] the key from an external key storage medium" (emphasis added). Thus, the key storage medium must be external to the system as a whole, rather than to just the encryptor. And because the Examiner states that Etzel discloses the first and second terminals as inputs to the processor 25, namely, the path 16 and the link to the memory 26, the processor 25 is read as implicitly part of the system and the "external key storage medium" as called for in Claim 12 must be external to the processor 25 as well as the encryptor, which it clearly is not as shown in Fig. 1 of Etzel.

Accordingly, because Etzel does not disclose receiving a key from an external key storage medium as called for in Claim 12, Applicants submit that Claim 12 is not anticipated by Etzel under 35 U.S.C. §102(e). Claims 13-29 are dependent on Claim 12. As such, Claim 13-29 are believed allowable based upon Claim 12 and for the additional limitations contained therein,

Appln No. 09/844,898
Amdt date August 3, 2005
Reply to Office action of June 3, 2005

which together further patentably distinguish Claims 13-29 over the art of record.

Claim 30 calls in part for "receiving a key from an external key storage medium". As discussed above with regards to Claim 12, Etzel does not disclose receiving a key from an external key storage medium as called for by Claim 30. Accordingly, Applicants submit that Claim 30 is not anticipated by Etzel under 35 U.S.C. §102(e). Claims 31-41 are dependent on Claim 30. As such, Claim 31-41 are believed allowable based upon Claim 30 and for the additional limitations contained therein, which together further patentably distinguish Claims 31-41 over the art of record.

The Examiner has rejected Claims 3, 9, 23 and 42 under 35 U.S.C. §103(a) as allegedly being unpatentable over Etzel. Claim 42 has been amended and currently calls for, "a multiplexer coupled to the first key storage medium, wherein the multiplexer outputs digital data or at least one of the first encryption key, the second encryption key and the first decryption key from the first key storage medium", as well as "a selector switch for receiving the digital data and the at least one of the first encryption key, the second encryption key and the first decryption key from the multiplexer, wherein the selector switch provides the digital data to the encryptor via the first port, and wherein the selector switch provides the at least one of the first encryption key, the second encryption key and the first decryption key to the encryptor via the second

Appln No. 09/844,898

Amdt date August 3, 2005

Reply to Office action of June 3, 2005

port" (emphasis added). As discussed above with regards to Claim 1, Etzel does not disclose either the processor 2 or the processor 25 receiving digital data and a cryptographic key from a multiplexer, or any selector switch receiving digital data and an encryption key from the multiplexer. Applicants therefore submit that Claim 42 is not anticipated by Etzel under 35 U.S.C. §102(e). Claims 43-46 are dependent on Claim 42. As such, Claim 43-46 are believed allowable based upon Claim 42 and for the additional limitations contained therein, which together further patentably distinguish Claims 43-46 over the art of record.

Claim 47 has been amended and currently calls for, "a multiplexer coupled to the first input terminal and the second input terminal... and a selector switch for receiving the digital data and the key from the multiplexer" (emphasis added). As discussed above with regards to Claim 1, Etzel does not disclose either the processor 2 or the processor 25 receiving digital data and a cryptographic key from a multiplexer, or any selector switch for receiving both digital data and a key from the multiplexer. Applicants therefore submit that Claim 47 is not anticipated by Etzel under 35 U.S.C. §102(e).

In view of the above amendment and remarks, it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration of the above Application is respectfully requested. Should there be any further issues that can be

Appln No. 09/844,898

Amdt date August 3, 2005

Reply to Office action of June 3, 2005

addressed by telephone, Applicants invite the Examiner to
contact the undersigned at the number indicated below.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By



Colin Dorrian

Reg. No. 54,658

626/795-9900

CTD/ctd

CTD PAS631644.1-*--08/3/05 11:03 PM